Dimensions of the type (measured on a spirit-specimen):—

Forearm 49 millim.

Head and body 53; tail 60; ear 17.5; third finger, metacarpal 33, first phalanx 7.2, second phalanx 14.7; fifth finger, metacarpal 30, first phalanx 8, second phalanx 7.2; lower leg and hind foot (s. u.) 32.

Skull: greatest length 16; basal length 14; occipito-nasal length 14.2; zygomatic breadth 9.5; breadth of brain-case

6.7; front of canine to back of m3 5.3.

Hab. Muscat. Type from Wadi Bani Ruha.

Type. Old male. B.M. no. 94.3.9.17. Collected and presented by Dr. A. S. G. Jayakar. Eight specimens

examined.

This species is readily distinguishable from all others by its delicately built, nearly unridged skull, its small teeth, and large bullæ.

LXXIII.—New Species of Eastern and African Lepidoptera. By Colonel C. SWINHOE, M.A., F.L.S., &c.

> Family Nymphalidæ. Subfamily EUPLŒINÆ. Crastia circuita, nov.

3. Rufescent brown, the borders paler; a small round subcostal spot beyond the middle on the fore wings, one a little above the origin of vein 3, another evanescent in the interspace below; the marginal and submarginal white spots above and below as in E. Distanti, Moore, from Sumatra, but the spots are rounder and more uniform in size, the subapical spots of fore wings less than one third the size.

Expanse of wings 3,7 inches.

Tonkin (Fruhstorfer).

## Crastia tonkinensis, nov.

3. Paler than the above and more rufescent, the apical border nearly as pale as some specimens of C. Godarti, Lucas; spots disposed of as in the above, but much smaller; no spot in the first interspace of fore wings, the next three mere dots; the last spot of the submarginal series next to the subcostal dot altogether absent, and the spots on the hind wings evanescent.

Expanse of wings 3 10 inches.

Tonkin (Fruhstorfer).

This species is nearest to C. Binghami, Moore, from Burma.

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## Subfamily Nemphaline. Symbrenthia florida, nov.

¿6. Belongs to the hippoclus group, the fulvous markings of the wings above much darker: the longitudinal fulvous band on fore wings is merged into the outer band, this band and the two upper spots being joined together, there being only a slight rounded line and two black spots within the joined space; on the hind wings the outer band is as large as the inner and has a fulvous spot running from its centre into the black submarginal band. The underside is almost exactly similar to S. hippoclus, Cram.

Expanse of wings 1 s inch.

Amboina.

## Family Zygænidæ. Illiberis discoidalis, nov.

Q. Antennæ black, with greenish-golden metallic scales on the shafts; frons grey, with golden-orange glittering scales in front of the antennæ; head, thorax, and abdomen black; collar golden orange; a similarly coloured spot on the thorax behind; segmental bands on the abdomen, the tip shining blue-green. Wings hyaline, with black veins; a thick discoidal band closing each cell; marginal black bands uniform in thickness, but not continued on to the abdominal margin of the hind wings; base of both wings suffused with black.

Expanse of wings 1 inch.

Tonkin, Montes Manson, April and May, 2300 feet (Fruhstorfer).

# Family Chalcosiidæ. Corma mirifica, nov.

Q. Antennæ, palpi, and head black, crimson immediately behind the antennæ, and the collar crimson all round; thorax, abdomen, and both wings of a uniform dull black; veins of fore wings pale pinkish yellow, veins 1 and 1 a joined together by a band of that colour before the middle, and a patch of that colour from the costa across the end of the cell to vein 2, like two large round spots joined together, each with a black spot in its centre, and connected by a thin band with the hinder margin; below same as above, except that the veins of fore wings are not marked.

Expanse of wings  $2\frac{1}{10}$  inches. Siam, Muok-Lek, 1000 feet, January (*Fruhstorfer*).

Allied to nothing I know of.

## Family Lithosiidæ.

#### Asura acteola, nov.

?. Head, frons, palpi, legs, and body beneath ochreous; thorax and fore wings scarlet, tinged with ochreous, markings pale black; an erect thin black band in the middle of the fore wings, some very short longitudinal streaks on the inner part of the wings, and some rather longer similar but more distinct streaks forming a band on the disk, parallel with the outer margin: abdomen and hind wings pale ochreous, without markings. Wings on the underside ochreous, tinged with scarlet, without any markings.

Expanse of wings 10 inch.

Siam, Muok-Lek, 1000 feet, January (Fruhstorfer).

#### Asura orsova, nov.

J. Palpi, thorax, and fore wings bright orange, smeared in parts between the veins with pale scarlet; two transverse blackish bands of short longitudinal streaks—antemedial and discal—neither of them reaching the costa, the former outwardly curved, the latter parallel with the outer margin; abdomen and hind wings ochreous grey, unmarked. Underside of a uniform ochreous grey, with the bands of the fore wings much paler than they are above.

Expanse of wings 16 inch.

Siam, Muok-Lek, 1000 feet, January (Fruhstorfer).

#### Asura undulata, nov.

3. Palpi, head, and thorax bright ochreous; abdomen ochreous grey, the anal tuft, a little space before it, and the underside blackish brown: fore wings with a black subcostal spot close to the base and a large blackish cloud running through the wing, twice angled towards the costa and twice towards the hinder margin, occupying nearly the whole wing, leaving the margins broadly yellow; hind wings ochreous grey, nearly white. Underside paler, a brown suffused subapical mark on hind wings.

Expanse of wings 1 inch. Khasia Hills (*Hamilton*).

#### Eugoa immunda, nov.

?. Wings of a dull obscure whitish colour; on the fore wings there are very minute grey striations, a chocolate-coloured basal band, and a similarly coloured marginal band

occupying the outer third of the wing: hind wings with a very obscure greyish marginal band, which occupies half the wing. Underside dull grey, without markings; head and thorax, body below, and legs ochreous.

Expanse of wings \( \frac{6}{10} \) inch.

Siam, Muok-Lek, 1000 feet, January (Fruhstorfer).

## Family Nolidæ.

## Nola lauta, nov.

Q. Pale greyish yellow; fore wings with a black dot in the middle of the cell and another at its end, the entire wing sparsely irrorated with very minute brown atoms; lines and markings olive-brown; antemedial and postmedial transverse lines outwardly curved, the former somewhat angled above its middle; a discal band of suffused streaks bends inwards, touches the outer line, and then turns abruptly to the hinder angle; marginal lunules; ochreous cilia, with brown tips: hind wings without markings.

Expanse of wings 10 inch.

Siam, Muok-Lek, 1000 feet, January (Fruhstorfer). Nearest to N. implens, Walker, but that species has no inner line to fore wings.

#### Family Limacodidæ.

#### Thosea sybilla, nov.

3. Antennæ and palpi grey; head and body pure white: fore wings with the upper two thirds suffused with chestnut-red, the lower part white; a brown spot at the end of the cell, another below the middle, and some discal brown spots: hind wings ochreous white; cilia of both wings greyish white. Underside without markings, of a uniform ochreous white.

Expanse of wings 18 inch.

Siam, Muok-Lck, 1000 feet, January (Fruhstorfer).

There are seven unnamed examples from Singapore in the B.M., Limacod drawer no. 12.

## Family Drepanulidæ.

#### Phalacra acutipennis, nov.

3 9. Wings long: fore wings narrow and produced at the apex, costa rounded before the apex, outer margin nearly straight; hind wings with the outer margin produced and acutely angled at vein 6. Upperside greyish ochreous, with a pinkish tinge, irrorated with minute brown atoms; a black spot on the middle of the discoidal vein, another at its lower end in all the wings: fore wings with suffused brown bands -basal, medial, and marginal,-the middle band running only a short distance from the hinder margin, leaving the upper disk and spaces between the bands pale, the latter with a crenulated line on each side and a grey suffused line running through them; the outer margin of the outer pale band with black dots: hind wings suffused with brown, with six short pale lines at the base, four towards outer margin, the inner one crenulated, and a crenulated submarginal line; antecilial line on both wings pale. Underside much brighter ochreous, with the discoidal spots and the outer lines distinct.

Expanse of wings,  $\sqrt{3}$   $1\frac{2}{10}$ ,  $\sqrt{2}$   $1\frac{1}{2}$  inch.

Khasia Hills. Types in B. M.

Marked somewhat like Phalacra excisa, Hmpsn., but that has angulated fore wings.

## Family Aganaidæ.

#### Aganais conspicua, nov.

3 9. Of a uniform dark bright ochreous colour; antennæ and last joint of the palpi black, a black and a white spot at end of first and second joints; legs white with black stripes, a black spot on each shoulder, three or four black dots on abdomen, and a double row beneath: fore wings with a subbasal black spot on the costa, followed by two pairs, the last on the middle of the costa, a white angulated basal mark, in which are two spots, a spot in the middle of the cell and four or five spots below it, nearly all the spots with white around them.

Expanse of wings,  $\delta 2_{10}^{6}$ ,  $2_{10}^{8}$  inches. Transvaal (*Crowley Bequest*). Types in B. M.

Not unlike the female of A. borbonica, Boisd., from Madagascar, but darker and brighter and spots larger and more numerous.

## Ayanais concolora, nov.

2. Of a uniform dark ochreous colour: the hind wings and the underside of both wings slightly paler than the colour of the fore wings above; the wings and body above and below without any markings; the antennæ ochreous brown; palpi black above, end of second joint and all the third joint wholly black, all the tarsi black, fore and middle legs black above.

Expanse of wings  $2\frac{1}{10}$  inches. Madagascar. Type in B. M.

#### Asota spadix, nov.

3. Palpi, head, and body dull ochreous: both wings of a uniform dull purplish brown; fore wings with a pale spot at end of cell, and some dull ochreous colour at the base: hind wings also with a pale spot at the end of the cell, and the costal space above, from the base to a little beyond the cell end, pale ochreous, nearly white. Underside: legs and body without markings; the basal half of both wings dull ochreous, the outer half purplish brown.

Expanse of wings 1½ inch.

Florida Isl., Solomons (Meek). Type in B. M.

The shape of the wings is somewhat as in A. plagiata, Walker, from Australia; it is a curious-looking insect and is allied to nothing I know of.

#### Asota donatana, nov.

3. Palpi with the last joint and end of second joint black; head and body ochreous yellow; thorax with some black spots; abdomen with black segmental bands. Wings pure white: fore wings ochreous at the base, with four black spots; a spear-shaped purple-grey mark on vein 1 outside the yellow base, with the white vein running through it; borders of both wings purple-grey, much in accordance with the usual pattern of the A. plana group, but in the fore wings the usual two grey spots on the inner edge of the costal border of the fore wings are absent, and the upper white spot towards apex is merged into the central white band; in the hind wings the band is narrow and is divided by the vein ends, and the three interdiscal spots usual in A. persecta, Walker, are present.

Expanse of wings  $2\frac{3}{10}$  inches. Donat Hills, Tenasserim. Type in B. M.

#### Family Notodontidæ.

## Pydna hunyada, nov.

3. Greyish yellow irrorated with grey, except on the hind wings, which are pure greyish yellow without markings; abdomen with pale segmental bands, the last three segments suffused with blackish brown: fore wings with a brown spot at the end of the cell, three brownish spots near the base, and two on the subcostal vein, one before and the other beyond the middle, a row of submarginal dots, and two pale transverse outwardly curved bands, one before and the other

beyond the middle, the latter much bent inwards before descending to the hinder margin. Underside: wings, body, and legs pure white.

Expanse of wings  $2\frac{2}{10}$  inches. S. Java, 1500 feet (*Fruhstorfer*).

## Family Noctuidæ.

## Cerynea decorata, nov.

3 ? . Frons, palpi, head, and patagia white; thorax, abdomen, and both wings uniform chocolate-brown; abdomen with the first two segments white: fore wings with an antemedial rather broad white band, outwardly angled above its middle, some basal white lines, a white line from the angle to the costa, then bent outwards and downwards, a submarginal sinuous white line joined to the outer margin below the apex, where there is some white suffusion, and again above the middle: hind wings with a white basal space, and white abdominal margin, an inner white line nearly straight, and a discal white line acutely angled to the outer margin at the middle; marginal line of both wings white, with white points.

Expanse of wings 10 inch.

Siam, Muok-Lek, 1000 feet, January (Fruhstorfer). There is a female from Bhutan in the B. M., with C. reticulata, Walker, Trifid drawer no. 209.

## Corgatha pusilla, nov.

Q. Palpi, frons, and collar ochreous grey; body and wings above of a uniform chocolate-brown colour; costa of fore wings with four prominent white spots—first at base, second before the middle, third beyond the middle, fourth at the apex; faint indications of antemedial and postmedial bands; marginal line of both wings brown and crenulated, with white points on the fore wings. Underside: wings, body, and legs ochreous white; outer veins grey; a grey, outwardly curved, thin, discal band on the fore wings.

Expanse of wings 6 inch.

Siam, Muok-Lek, 1000 feet, January (Fruhstorfer).

There are some examples in the B. M. wrongly named quadricostaria, Walker; but that species has only two white spots on the costa of fore wings, the first subbasal and the other in the middle, and is figured from a photograph of the type in Cat. Het. Mus. Oxon. ii. p. 69.

#### Metachrostis fausta, nov.

3 ? Palpi, head, and thorax blackish brown: fore wings with the basal third of the same colour, a pale basal transverse band and another antemedial within the blackish space, which is limited by a pale band edged with black, acutely angled ontwards, the reniform stigma being inside the angle, there is also an orbicular visible, the former the larger, both pale with black centres and white eye-speck; the outer part of the wing is pale olive-grey, with blackish diffuse and somewhat large apical spot, and some black marks on the hinder angle: hind wings olive-grey, a black dot at end of cell and some brownish suffusion at the base; both wings with black marginal points.

Expanse of wings  $\frac{8}{10}$  inch.

Tenasserim, Tandong, 4000 feet, May (Fruhstorfer).

Superficially resembles several species of this genus, but is distinguishable by the outer pale band of fore wings having a single angle.

#### Hyblaa vasa, nov.

σ ♀. First and second joints of palpi below and pectus orange-yellow, with some dark orange hairs; last joint of palpi and first and second joints above black; head and thorax dark chestnut, some dark orange hairs at the base of thorax: fore wings with the basal half and costal apical space, and the whole of the hind wings, black, the remaining lower outer half of fore wings paler pinkish brown, almost exactly as in II. firmamentum, Guen.; abdomen black. Underside: fore wings brown, hind wings black, the latter with three thick stripes from the base of bluish white, and three spots above them of the same colour; the female has two bright orange spots on the hind wings, one below the middle of the costa, the other towards the outer margin below the middle.

Expanse of wings  $1\frac{3}{10}$  inch.

Fergusson Isl., D'Entrecasteaux, July (Fruhstorfer).
There are two examples from Kiriwini and three from Kapaur in the B. M. unnamed.

#### Lineopalpa orsara, nov.

3. Head, thorax, and fore wings red-brown: fore wings with a small brown orbicular with a white pupil; reniform like an indistinct whitish figure of eight; two transverse lines, ante- and postmedial, both crenulated and nearly straight: hind wings whitish towards the base, suffused with

dull red outwardly. Palpi, legs, and entire underside pale ochreous grey: fore wings tinged with brown; hind wings with the outer parts similarly tinged, and with a discal row of grey dots.

Expanse of wings 11 inch.

Kina-Balu.

## Thyas pallescens.

Lagoptera pallescens, Walker, Journ. Linn. Soc. Lond. vii. p. 179 (1864).
Thuas pallescens, Swinh. Cat. Het. Mus. Oxon. ii. p. 144 (1900).

Thyas pallescens, Swinh. Cat. Het. Mus. Oxon. ii. p. 144 (1900). Lagoptera violetta, Pag. Abh. Senck. Ges. 1897, p. 449, pl. 20. f. 13.

Type, Sarawak, Borneo, in O. M.

Type (violetta), Borneo, in coll. Pagenstecher.

I have it also from Borneo and Singapore, and Mr. Ernest Swinhoe received one from Cherra Punji which is now in coll. Rothschild.

## Plecoptera pellicea, nov.

3. Palpi, head, thorax, and fore wings ochreous grey: fore wings with a small black spot on the costa before the middle, a large black angular patch at the middle, its downward point rounded and slightly bent inwards on its outer side; below this patch is a small black spot on vein 2, and there is a black subapical patch with its downward end flattened, followed by a small black spot close to the apex; there are indications of a sinuous discal line: hind wings brown without markings; both wings with indistinct grey marginal lunules, an ochreous marginal line and brown cilia, with a pale interline: abdomen brown with an ochreous anal tuft.

Expanse of wings 14 inch.

Siam, Muck-Lek, 1000 feet, January (Fruhstorfer).

With the black costal marks somewhat as in P. trimaculata, Hmpsn.

## Noorda accensalis, nov.

3. Antennæ, palpi, head, and thorax bright orange-red; thorax with some pale yellow spots; abdomen dull reddish ochreous: fore wings pale yellow, with bright orange-red bands, basal, subbasal, medial, discal, and marginal, the last two close together, the others have yellow spaces between them intersected by red longitudinal lines: hind wings white, with a slight red tinge on the outer border.

Expanse of wings 6 inch.

Siam, Muok-Lek, 1000 feet, January (Fruhstorfer).

Nearest to M. ignealis, Hmpsn.

#### Calesia vinolia, nov.

§ ?. Palpi, frons, face, pectus, thorax below, and legs scarlet; tarsi grey; top of head, thorax, and both wings above of a uniform dark brownish-slate colour, without any markings, except a faintly indicated medial thin band, slightly darker than the colour of the wings, very slightly outwardly curved: the outer portion of the fore wings has in some lights a coppery sheen; the abdomen has the first two segments brown, the rest scarlet; on the underside it is suffused with grey, and the wings are uniformly paler than they are above and without markings.

Expanse of wings 2 inches. Fergusson Island (Meek).

Near *C. pellio*, Felder (Reise Nov. pl. 117. fig. 19), but that species is represented as having the whole of the head and the entire abdomen bright scarlet.

There are two males and one female from Fergusson Island and a pair from Kiriwini, unnamed, in the B. M., Quadrifid drawer no. 152.

#### Egnasia franconia, nov.

\$\foats.\$ Of a uniform dark olive-brown colour above, the wings striated with darker brown: fore wings with three subapical dots on the costa, indications of a postmedial whitish transverse line edged with dark brown, only apparent on the costa and towards the hinder margin; hind wings with a corresponding medial line which is complete: cilia of both wings with a pale interline; both wings with the outer margins crenulate; outer margin of fore wings excised from apex to middle, of hind wings excised between veins 4 and 6: the colour on the underside is much paler than on the upperside, is more or less smeared with white, and the brown striations give it a handsome marbled appearance.

Expanse of wings  $1\frac{8}{10}$  inch.

South Java, 1500 feet, 1896 (Fruhstorfer).

Sir George Hampson, in his diagnosis of this genus in his excellent work on the Moths of India, vol. iii. p. 15, incorrectly says that the third joint of the palpi has a tuft of hair on the inner side; this certainly is not the case with the type of the genus, *E. ephyrodalis*, Walker, nor with rectilinea, Swinhoe, accingalis, Walker, participalis, Walker; the only one of Hampson's species in my collection with this tuft is castanea, Moore, and this is not a typical Egnasia. The whole family of the Focillidæ is much in want of a careful revision.

## Avitta cupienda, nov.

?. Antennæ, last joint of palpi, abdomen, and hind wings above black, without markings, the first two joints of the palpi ochreous on their inner sides; the outer sides of the palpi, head, thorax, and fore wings above dark brown-pink, the last with thin indistinct ochreous transverse bands or thick lines, antemedial, inclining outwards, angled below costa, then nearly straight and outwardly edged with brown; another postmedial, deeply angled below costa, then dislocated, then continued to the hinder margin parallel to and shaped like the first line; an apical ochreous indistinct smear, two blackish spots at the end of the cell, marginal line pale, cilia black; the cilia of the hind wings are black with the outer half nearly white.

Expanse of wings  $1\frac{7}{10}$  inch. Kina-Balu (*Everett*).

## Talapa gebenna, nov.

3. Of a uniform dark pinkish-grey colour, sparsely irrorated with brown atoms; indications on the fore wings of subbasal, medial, and discal transverse lines, the last dentated; orbicular a round reddish spot, reniform larger, nearly square, and of the same colour, both indistinct; a black angular subapical spot on the costa: hind wings with an indistinct dentated discal line corresponding to the middle line of the fore wings; outer margin of both wings shaded darker, an anteciliary white line. Underside paler, with a medial outwardly curved line on both wings.

Expanse of wings  $1\frac{6}{10}$  inch.

Siam, Muok-Lek, 1000 feet, January (Fruhstorfer); Singapore (Davison).

There is an example, without palpi, from Sumatra, in the

B. M., unnamed.

## Hypena cremona, nov.

3 ? Palpi, head, thorax, and fore wing pinkish brown: fore wings with a prominent white spot in the cell of male, a central broad band, slightly darker than the rest of the wing, limited by a subbasal sinuous pale line and a postmedial similar line, the former edged outwardly with brown, the latter edged inwardly; a submarginal series of black dots with white flecks, some distance from the margin: hind wings dark brown without markings.

Expanse of wings  $1\frac{3}{10}$  inch.

Fergusson Island (Meek). Types in B. M.

I have in my collection a worn example from the same collector.

#### Family Orthostixidæ.

#### Celerena siamica, nov.

3 ?. Bright yellow above and below: fore wings with a well-defined purple-grey streak, from the costa across the end of the cell, where it is elbowed acutely outwards to the middle of the discoidal vein, and extends downwards below vein 2; a similarly coloured band on the costa, from the base to the discoidal streak, the outer marginal band paler purplegrey, limited inwardly by a dark purple band, as in the common Indian form *C. divisa*, Walker.

Expanse of wings  $2\frac{4}{10}$  inches.

Siam, Muok-Lek, 1000 feet, January (Fruhstorfer).

Much brighter and of a darker colour than *C. divisa* which it resembles, but the discal streak is clean cut, more acutely angled, and extends below vein 2.

## Family Geometridæ.

#### Episothalma cognataria, nov.

Q. Above dark green, darker than in *E. robustaria*, Guen, but much the same tint of colour; costa of fore wings minutely speckled with yellow, a black dot at the end of each cell, a discal row of white dots across both wings, marginal pale points, whitish cilia, interlined with grey. Underside very pale green, nearly white, marginal line black.

Expanse of wings  $1\frac{4}{10}$  inch.

Siam, Muok-Lek, 1000 feet, January (Fruhstorfer).

Differs from E. robustaria and its allies in the outer margin of fore wings, which is quite even.

## Family Pyraustidæ.

## Pagyda pullalis, nov.

3. Pale ochreous brown, bands dark brown: fore wings with an outwardly curved inner band touching both costa and inner margin; a median straight and erect band, from the inner margin to the subcostal vein, where there is a blackish dot; a discal straight band from the costa to vein 3, inclining inwards and joined to the central band by a large brown patch: hind wings with inner and outer erect bands, corre-

sponding to the first two bands on the fore wings; a sub-marginal, indistinct, brown line on both wings.

Expanse of wings  $\frac{7}{10}$  inch.

Siam, Muok-Lek, 1000 feet, January (Fruhstorfer).

Allied to *P. arbiter*, Butler. Some of the examples are very little more than half an inch in expanse of wings.

#### Bocchoris amandalis, nov.

3. Palpi ochreous, top of second joint and the whole of the third joint purple-brown; head and thorax purple-brown spotted with yellow; abdomen with the first three segments yellow above, the remaining segments purple-brown, with white segmental bands: fore wings with the costa purple-brown; both wings with the outer third of the same colour; the interior of both wings yellow, the fore wings having many yellow spots ringed with purple-brown; the hind wings with an acute medial transverse purple-brown line, touching a white spot in the middle of the wing, and four yellow spots on the interior border of the marginal band, one near the costa, the other three in the middle, touching each other. Underside of body and legs white; wings pale, with the upperside markings showing through them.

Expanse of wings 180 inch.

Siam, Muok-Lek, 1000 feet, January (Fruhstorfer).

#### LXXIV.—New Species of Indian Aculeate Hymenoptera. By Major C. G. Nurse, Indian Army.

[Continued from p. 403.]

#### Pompilus venenatus, sp. n.

Q. Head and the greater portion of the thorax very closely and finely punctured, the punctures only visible with a microscope; abdomen smooth and impunctate; the post-scutellum, episternum and median segment finely and shallowly transversely striate; head much wider than thorax, clypeus very convex, arched anteriorly, a tubercle behind the base of antenna, bisected by a longitudinal impressed line, which reaches the anterior occllus; thorax when viewed from the side very convex, the pronotum short and rounded anteriorly, median segment emarginate at apex, the sides rounded, with an obscure median longitudinal furrow; abdomen very convex, second segment with a ventral furrow.